### CLAIMS:

What is claimed is:

- 1 1. A method for managing a cache in a distributed
- 2 caching environment, the method comprising:
- 3 receiving a cache notification event from a sending
- 4 device, wherein the cache notification event includes
- 5 time relative information and a clock value for the
- 6 sending device;
- 7 determining a clock delta by determining a
- 8 difference between the local clock and the clock value of
- 9 the sending device; and
- 10 adjusting the time relative information in the cache
- 11 notification event based upon the clock delta.
- 1 2. The method of claim 1, further comprising:
- validating the cache notification event.
- 1 3. The method of claim 2, further comprising:
- 2 discarding the cache notification event if the cache
- 3 notification event is invalid.
- 1 4. The method of claim 1, wherein the cache
- 2 notification event is one of an add event, an update
- 3 event, and an invalidation event.
- 1 5. The method of claim 1, wherein the time relative
- 2 information is an expiration value.

- 1 6. The method of claim 5, wherein the expiration value
- 2 is one of a discrete time and an amount of time relative
- 3 to a created time.
- 1 7. An apparatus for managing a cache in a distributed
- 2 caching environment, the apparatus comprising:
- 3 means for receiving a cache notification event from
- 4 a sending device, wherein the cache notification event
- 5 includes time relative information and a clock value for
- 6 the sending device;
- means for determining a clock delta by determining a
- 8 difference between the local clock and the clock value of
- 9 the sending device; and
- 10 means for adjusting the time relative information in
- 11 the cache notification event based upon the clock delta.
- 1 8. The apparatus of claim 7, further comprising:
- 2 means for validating the cache notification event.
- 1 9. The apparatus of claim 8, further comprising:
- 2 means for discarding the cache notification event if
- 3 the cache notification event is invalid.
- 1 10. The apparatus of claim 7, wherein the cache
- 2 notification event is one of an add event, an update
- 3 event, and an invalidation event.
- 1 11. The apparatus of claim 7, wherein the time relative
- 2 information is an expiration value.

- 1 12. The apparatus of claim 11, wherein the expiration
- 2 value is one of a discrete time and an amount of time
- 3 relative to a created time.
- 1 13. A cache component, in a server device, for managing
- 2 a cache in a distributed caching environment, the cache
- 3 component comprising:
- a core cache that stores cache entries; and
- a cache auditor that performs operations on entries
- 6 in the core cache,
- 7 wherein the cache auditor receives a cache
- 8 notification event from a sending device, wherein the
- 9 cache notification event includes time relative
- 10 information and a clock value for the sending device;
- 11 determines a clock delta by determining a difference
- 12 between the local clock and the clock value of the
- 13 sending device; and adjusts the time relative information
- 14 in the cache notification event based upon the clock
- 15 delta.
- 1 14. The cache component of claim 13, wherein the cache
- 2 auditor validates the cache notification event.
- 1 15. The cache component of claim 14, wherein the cache
- 2 auditor discards the cache notification event if the
- 3 cache notification event is invalid.
- 1 16. The cache component of claim 13, wherein the cache
- 2 notification event is one of an add event, an update
- 3 event, and an invalidation event.

- 1 17. The cache component of claim 13, wherein the time
- 2 relative information is an expiration value.
- 1 18. The cache component of claim 17, wherein the
- 2 expiration value is one of a discrete time and an amount
- 3 of time relative to a created time.
- 1 19. A computer program product, in a computer readable
- 2 medium, for managing a cache in a distributed caching
- 3 environment, the computer program product comprising:
- 4 instructions for receiving a cache notification
- 5 event from a sending device, wherein the cache
- 6 notification event includes time relative information and
- 7 a clock value for the sending device;
- 8 instructions for determining a clock delta by
- 9 determining a difference between the local clock and the
- 10 clock value of the sending device; and
- instructions for adjusting the time relative
- 12 information in the cache notification event based upon
- 13 the clock delta.
  - 1 20. The computer program product of claim 19, wherein
  - 2 the time relative information is an expiration value.